

## **Full Year Draw Down (Extended)**

- 1. Is a permit/fee required? (DNR, Army Corps, other) Carrie No, No ElS or analysis for Threatened or Endangered species either. Sue No
- 2. Are there other costs with maintaining a full year draw down? Mary spray, mow, remove vegetation prior to refilling, boat launch fees lost, rotenone for carp. Other comments: Invasive Phragmites or cattails? Potential dam deterioration? Woody vegetation? Need for mowing?
- 3. Is there a minimum time period for a draw down to benefit water quality within the Millpond? Mary Ideal drawdown in spring and refill the following fall, two summers and one winter to thoroughly dewater, Winter drawdown kills Eurasian Water Milfoil (EWM). The longer the better for compaction and aerobic decomposition. Tom/Nick compacted sediment will provide deeper water and stay compacted for a significant time.
- 4. How long can water quality benefits be expected within the Millpond after refill? Mary-Depends on mother nature, may need to repeat possibly 5- 10 years. Benefits include increased depth and reduction of EWM. May want to set goals to maintain EWM and implement winter season drawdowns.
- 5. What are the short and long term impacts to fish and aquatic life? Mary Fish will need 3-5 yrs to recover. Long term impacts: increased habitat, desirable native aquatic plants, and decrease in undesirable invasive plants, improved water quality, may want to stock desirable fish immediately upon refill to keep carp in check.
- 6. What are the short and long term impacts to aquatic vegetation? Mary Significant winter freeze will decrease EWM, but native plants will respond positively. Amount of vegetation will be about the same because of shallow water, but should see better overall diversity and more desirables in near shore areas.
- 7. Are there any other upstream or downstream potential impacts to the public resources (short/long term)? Mary Loss of fishing opportunities during drawdown. Tom/Nick short term decline in native fish, need to restock, temporary carp reduction unless implement additional controls.

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- 8. Are there any potential safety hazards such as blastomycosis? Tom Yes it's possible," I would stay out until vegetated" Mary Not sure, but muck will dry out and vegetation will grow quickly. Greg It's a possibility.
- 9. Will there be an odor with vegetation decaying? Mary Yes, a mucky decaying smell, but only for a short time possibly a week or two.
- 10. How will sediment flushing downstream be reduced? Carrie -The draw down will be gradual until the pond is reduced to a stream channel, at which time the Sluice valve will remain fully open to accommodate storm events. Some sediment transport is inevitable, but will be reduced when vegetation is reestablished.
- 11. Should fish barriers be placed upstream and/or at the dam? Rob Assuming the intent is to remove certain species (carp) then an upstream barrier might help keep them from moving upstream. No need to prevent downstream movement. Regarding lamprey or other invasive species moving up, it might be necessary to maintain an 18" drop. Not a major issue regarding a 1 yr. draw down. Details can be worked out later.
- 12. Will drawdown eliminate need to poison carp? Rob Yes it could. Fish may concentrate in pools. It may be possible to "herd" them down through the gates. Netting or Poison when concentrated is an option. Mary- Possibly net the fish instead of Rotenone.
- 13. Will a full year draw down decrease potential dredging costs? Greg, & Jim Potentially, but many factors play in to the total costs. Disposal site proximity and trucking.
- 14. Should a Dam inspection occur before and after a draw down? Miles- Not required but you might find something after draw down.
- 15. Other questions/comments: Tom/Nick overall a good option with compacted sediments and deeper water. A strategic dredge combined with draw down might be better yet. Restocking and fish kills will still be hurdles. Carp management is tough, but options exist.